# (19) World Intellectual Property Organization

International Bureau



# 1 (BANK BINTON IN COLUMN TO BE AND BANK BANK BANK BANK BANK BINTON BINTON BANK BANK BANK BANK BANK BANK BANK B

(43) International Publication Date 29 July 2004 (29.07.2004)

## (10) International Publication Number WO 2004/062740 A1

(51) International Patent Classification<sup>7</sup>: 21/008, F16F 9/02

A63B 21/002,

(21) International Application Number: PCT/ZA2003/000156

- (22) International Filing Date: 20 October 2003 (20.10.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03/0392 10/611,870 15 January 2003 (15.01.2003) ZA 3 July 2003 (03.07.2003) US

- (71) Applicant (for all designated States except US): GREEN-HOUSE INTERNATIONAL LLC [US/US]; 2408 Pebble Beach Drive, Elkton, MD 21921 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): VAN STRAATEN, Willem, Johannes [ZA/ZA]; 130 Trafalgar Place Street, Sandhurst, 2196 Sandton (ZA). PUZEY, Michael, Roydon [ZA/ZA]; 7 Hans Schoeman Street, Malanshof, 2194 Randburg (ZA).

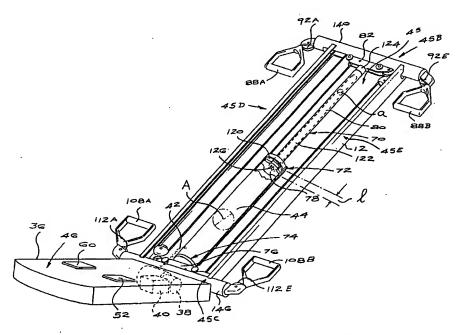
- (74) Agents: MCCALLUM RADEMEYER & FREIMOND et al.; 7 June Avenue, P.O. Box 1130, 2125 Randburg (ZA).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCI Gazette.

(54) Title: RESISTANCE ASSEMBLY



(57) Abstract: A resistance assembly (44, 70, 160, 166) for use in an exercise machine which includes a cylinder and a piston with a hollow piston rod (80) which is slidably engaged with the cylinder. The interiors of the cylinder and the piston rod are pressurised using a compressor to provide a controllable resistance force against which a user can exercise.

## INTERNATIONAL SEARCH REPORT

Internations—application No PCT/7A 03/00156

PCT/ZA 03/00156 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A63B21/002 A63B21/008 F16F9/02 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) IPC 7 A63B F16F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Cltation of document, with indication, where appropriate, of the relevant passages Relevant to daim No. χ US 4 826 156 A (DREIER BEAT) 1-6,112 May 1989 (1989-05-02) column 1, line 8 - line 28; figures χ EP 1 260 249 A (MULTI FORM) 1,2,5,6, 27 November 2002 (2002-11-27) 10,11 paragraph '0008! - paragraph '0016! paragraph '0030! - paragraph '0034! paragraph '0039! - paragraph '0040!; figures χ GB 2 076 665 A (HORNG MEEI SPRING) 1,5-9,119 December 1981 (1981-12-09) page 1, line 30 - line 48 page 1, line 94 - line 109; figures 3,4 Further documents are listed in the continuation of box C. Patent family members are listed in annex. . Special categories of cited documents: \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the International "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled O' document referring to an oral disclosure, use, exhibition or document published prior to the International filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 10 March 2004 23/03/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Fischer, E

Form PCT/ISA/210 (second sheet) (July 1992)

# INTERNATIONAL SEARCH REPORT

Internation—pplication No PCT/ZA 03/00156

		PCT/ZA 03/00156
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Cltation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	EP 0 878 216 A (KASUGA HIROSHI) 18 November 1998 (1998-11-18) column 15, line 11 -column 16, line 17; figure 12	1,2,5,6, 10,11
X	FR 2 686 259 A (THEROND LEON) 23 July 1993 (1993-07-23) page 1, line 32 -page 2, line 30 page 5, line 10 -page 6, line 21; figures 1,2	1,2,5-9, 11
X	GB 650 009 A (PAUL FRANCOIS GALLERET) 7 February 1951 (1951-02-07) the whole document	1,2,5-9,

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

# INTERNATIONAL SEARCH REPORT Internation No

Information on patent family members

PCT/ZA 03/00156

					7 00/00130
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4826156	A	02-05-1989	CH AT AU WO DE EP JP	668193 A5 46448 T 7230387 A 8706482 A1 3760571 D1 0268596 A1 1500167 T	15-12-1988 15-10-1989 24-11-1987 05-11-1987 26-10-1989 01-06-1988 26-01-1989
EP 1260249	А	27-11-2002	FR EP	2824741 A1 1260249 A1	22-11-2002 27-11-2002
GB 2076665	A	09-12-1981	HK MY SG US	95884 A 86285 A 72184 G 4333645 A	14-12-1984 31-12-1985 29-03-1985 08-06-1982
EP 0878216	A	18-11-1998	AU AU EP WO JP CA CN	705011 B2 1210997 A 2306997 A 0878216 A1 9830805 A1 3137990 B2 2242952 A1 1208357 A 9725107 A1	13-05-1999 01-08-1997 03-08-1998 18-11-1998 16-07-1998 26-02-2001 17-07-1997 17-02-1999 17-07-1997
FR 2686259	Α	23-07-1993	FR AU EP WO	2686259 A1 3502993 A 0624108 A1 9314822 A1	23-07-1993 01-09-1993 17-11-1994 05-08-1993
GB 650009	А	07-02-1951	NONE		